IN THE SPECIFICATION:

Page 15, please amend the paragraph beginning at line 1 as follows:

Fig. 1 shows the basic constitution of the optical disk unit and the optical head using the present invention. Reference numeral 1 denotes the semiconductor plate where the photodetecting elements, the electronic circuit and the like are formed on its surface, the laser chips and the like are mounted thereon, and silicon or the like is preferable, for example. In Fig. 1, the front surface of the semiconductor plate 1 cannot be seen actually because it is arranged facing its rear surface to a viewer, but the drawing shows in a phantom state where the plate is seen from the rear surface to the front surface. 2 denotes the mount surface for the laser chips, which is formed by engraving the surface of the semiconductor plate 1 in the depth of approximately 30 μm to 100 μm by etching processing or the like, and the mount surface for the laser chips 2 is parallel with the surface of the semiconductor plate 1. The arrow 3 shows the normal direction of the mount surface for the laser chips 2. 4a denotes the semiconductor laser chip for the DVD, which radiates the laser beam 6a having the wavelength λa = 660 nm, and 4b denotes the semiconductor laser chip for the CD-R, which radiates the laser beam 6b having the wavelength λa = 780 nm. The semiconductor laser chips 4a and 4b are adhered to the mount surface for the laser chips 2 by soldering or the like. 5 denotes the semiconductor mirror surface formed between the surface of the semiconductor plate 1 and the mount surface for the laser chips 2, which can be simultaneously formed with the mount surface for the laser chips by etching processing or the like. The laser beam 6a for the DVD, after radiated from the semiconductor laser chip 4a to an upward direction of Fig. 1, is reflected by the semiconductor mirror surface 5, and becomes a parallel luminous flux by the collimating lens 10. 7 denotes the photodetecting element that obtains a focusing error detection signal, 8: the photodetecting element that obtains a tracking error detection signal and an information reproduction signal, 9:

photodetecting element that monitors a light emission amount of the semiconductor laser chips 4a and 4b, and 7, 8 and 9 are severally formed on the surface of the semiconductor plate 1. 11 denotes the mirror that radiates the laser beams 6a and 6b on an information medium. 12 denotes the composite element in which a polarization four-division grating and a quarter-wave plate are adhered into a unit, which is arranged facing the four-division grating to the semiconductor laser chip. The polarization four-division grating is made of, for example, a birefringent plate optical crystal plate or a liquid crystal plate, which transmits an incident light without diffraction when it is an ordinary light and functions as the grating when it is an extraordinary light. 13 denotes the focusing lens, and a lens with variable entrance pupil diameter, a lens added with a hologram element on an incident side, a lens added with the hologram element and a zone groove on the lens surface of the incident side, or the like can be used so as to be suitable for both of the optical disk for the DVD, which has a plate thickness of 0.6 mm, a working wavelength of 660 nm and a numerical aperture of 0.6, and the optical disk for the CD-R and CD, which has a plate thickness of 1.2 mm, a working wavelength of 780 nm and a numerical aperture of 0.5. 15 denotes the foregoing optical disk for the DVD and optical disk for the CD-R and CD. 16 denotes the rotation center of the optical disk 15, the circle 17 in a dotted line show the track to which information is recorded, and 18 denotes the radius direction of the optical disk 15. Since the track 17 is displaced to the direction of 18 by the rotation of the optical disk, the tracking servo is required to make the optical spot of the laser beams 6a and 6b track the track 17. Accordingly, although not shown in Fig. 1, the focusing lens 13 is displaced by the lens actuator or the like shown in Fig. 9 in the tracking servo direction shown by the reference numeral 14 by the use of electromagnetic force. In this embodiment, a projected image in the tracking servo direction is reflected by the mirror 11 and the semiconductor mirror 5 to unify the normal direction 3 of the mount surface for the

laser chips 2. Specifically, the mount surface for the laser chips 2 for mounting the semiconductor laser chips 4a and 4b is substantially perpendicular to the tracking servo direction 14. Further, as illustrated, the semiconductor laser chips 4a and 4b are mounted so that an alignment direction thereof is substantially perpendicular to the tracking servo direction 14, and similarly, the optical spots of the laser beams 6a and 6b on the optical disk 15 have an alignment direction which is substantially perpendicular to the tracking servo direction 14.

Page 18, please amend the paragraph beginning at line 3 as follows:

In this embodiment, the laser beams 6a ~~an~~ and 6b radiated from the semiconductor laser chips 4a and 4b, in the case of being incident to the composite element 12 made of the polarization four-division grating and the quarter-wave plate, are incident to the composite element 12 as the ordinary light and transmit the polarization grading portion without diffraction, and then forms a circular polarization. The laser beams 6a and 6b reflected by the optical disk become the extraordinary light by the quarter-wave plate of the composite element 12 and diffracted by the polarization four-division grading. Fig. 2 shows an example of the grating pattern of the four-division grading of the composite element 12, which is divided into four areas by the boundary lines 21 and 22. The circle 20 shows the laser beam 6a or 6b that is separated into four pieces of + primary diffraction light and four pieces of – primary diffraction light by the four-division grating.

Page 22, please amend the paragraph beginning at line 19 as follows:

Fig. 10(a) and 10(b) show the structure of the optical disk unit, in which 10(a) is a plan view and 10(b) is a side view. 101 denotes the case of the optical disk unit. 102 denotes the motor mounted on the case 101 of the optical disk unit to rotate the optical disk 15 via the shaft 103 which serves as a setting portion of the optical disk

15 as an optical information medium. 104 denotes the optical head where the package 41 enclosing the semiconductor plate 1 and the lens actuator 105 mounted with the focusing lens 13 are mounted. 106 denotes the access mechanism mounted on the optical head, and 107 denotes the rail mounted on the case 101 of the optical disk unit. The optical head 104 can move on the rail 107 by the access mechanism 106 in the radius direction of the disk 15. The collimating lens 10, the mirror 11 and the composite element 12 are inside of the optical head 104. The laser beam 6a or 6b radiated from the semiconductor laser chip 4a or 4b mounted on the package 41 is radiated from the optical head via the focusing lens 13 on the lens actuator 105, and radiated on a rotating optical disk 15. The reflected beam is incident to the optical head via the focusing lens 13 again, a part of which is received by the photodetecting element 7 mounted on the package 41 to obtain the focusing error detection signal. Moreover, another part is received by the photodetecting element 8 mounted on the package 41 to obtain the tracking error detection signal and information reproduction signal.